

PROJECT SUMMARY

COMMERCIAL STANDARDISATION OF INSTRUMENT TESTING OF COTTON FOR THE COTTON PRODUCING DEVELOPING COUNTRIES IN AFRICA

Project Background

The industry demands for objective and reliable cotton fibre test results are increasing rapidly, and major cotton importing countries are integrating instrument based data in trade. Cotton with insufficient verification of its quality will result in price discounts for the producers or exclusion from the market. Only a worldwide harmonised control and testing system can favour a frictionless business for all participants in the whole commercial chain.

Developed cotton growing countries, like the USA, have already built up their national cotton quality assessment systems and instrumental classification has resulted in a competitive advantage for the USA in global marketing. It is obvious that the establishment of an adequate instrumental cotton testing system based on high volume instruments for the cotton producing countries in Africa and elsewhere would facilitate the access of their cotton to diverse global markets. But, up to now, there is no adequate international verification over the world of other test laboratories and of their results. The availability of high volume cotton testing instruments solely is not satisfactory to produce reliable test values - examples from all over the world show that, without certified testing procedures, the results will be disregarded and therefore are worthless. The results have to be reliable and at an internationally agreed level. Cotton producing developing countries will be disadvantaged in their market position, if they do not manage to participate in an international quality assessment system.

For the purpose of achieving reliable instrumental test results for the global cotton trade, the ICAC-CSITC Task Force (Commercial Standardisation of Instrument Testing of Cotton) brought together representatives of spinning mills, traders, cotton producers and research. The objective of this CFC project (which is based on the recommendations and conclusions of the ICAC CSITC meeting in Mumbai on November 28th, 2004) is to assist the cotton producing countries, especially the developing countries and Least Developed Countries (LDCs), to meet the emerging quality assessment demands of the global cotton market so as to strengthen or at least maintain their competitive position in the world market by keeping up with modern developments from the end-markets. Therefore, it is essential to enable these countries to supply their cotton with objective and reliable instrument-based quality information, based on internationally accepted test rules and procedures.

Project Objectives and Content

The aim of the project is to improve the integrity of worldwide cotton trade by establishing a reliable system of instrumental cotton characterisation, adoptable by all cotton producing countries, especially developing countries. Therefore, the following measures have to be achieved:

- Introduction of a worldwide acceptable, adoptable and reliable instrument based cotton quality assessment having defined test rules and being based on a worldwide cotton testing laboratory certification system.
- Support to African laboratories, so that they will be able to fulfil the international requirements for reliable instrument testing of cotton. This will be done mainly by the establishment of Regional Technical Centres (RTCs) for providing the necessary assistance for the application of instrument testing in cotton testing laboratories. Especially education and expertise will be essential for a successful setting-up of a network of well harmonised laboratories to satisfy the cotton testing demands.

Regional Technical Centres will be installed in two different cotton producing areas of Africa, based on existing organisations in the countries. The Regional Technical Centres will be:

- **West Africa:** CERFITEX textile school, in Segou, Mali, in cooperation with SOFITEX classing office in Bobo Dioulasso, Burkina Faso, to support directly West African laboratories and indirectly Central African laboratories
- **East/Southern Africa:** Tanzania Bureau of Standards (TBS), in cooperation with the Tanzania Cotton Board (TCB), both in Dar es Salaam, Tanzania, to support directly Eastern and Southern African laboratories and indirectly North-East African laboratories.

Activities

Component A: Global CSITC Configuration

- A.1. Defining the rules for international co-operation
 - A.1.1. Prepare CSITC structure
 - A.1.2. Define detailed duties of the involved bodies
 - A.1.3. Prepare rules for the African RTCs and the boards of the RTCs
- A.2. Definition of test method
- A.3. Implementation of test rules
 - A.3.1. Provide information to Cotton Associations
 - A.3.2. Provide information at the national political and regulation level
- A.4. Provision of Calibration Standard Material
- A.5. Task Force activities for the international approval of the project findings

Component B: Evaluation of Cotton Testing Laboratories (CTLs)

- B.1. Preparation of grading based on an International Round Trial System
 - Establishment of a Round Trial System
 - Development of a database for the Round Trial
- B.2. International approval of the international cotton testing laboratory certification
- B.3. Periodical work for the international laboratory check
 - B.3.1. Periodical work for the International Round Trial
 - B.3.2. Re-test of samples from laboratories at USDA, FIBRE and CIRAD
- B.4. Preparation of the embedding of ISO accreditation in the CSITC system

Component C: Support to African Cotton Producing Countries

- C.1. Preparation, installation and running of the Regional Technical Centres
 - C.1.1. General
 - C.1.2. Tasks in West Africa
 - C.1.3. Tasks in West Africa
 - C.1.4. Tasks for regions without RTC
- C.2. Support for the cotton testing laboratories
 - C.2.1. Advice for the fulfilment of the CSITC requirements
 - C.2.2. Estimation of the necessary monetary support
 - C.2.3. Direct monetary support for the laboratories
 - C.2.4. Check of the realisation of the necessary modifications
 - C.2.5. Participation in the CSITC certification system
 - C.2.6. Participation in the Regional Technical Centre actions
- C.3. Activities and Contributions of additional partners

Component D: Technical Developments to Improve Instrument Testing Reliability

- D.1. Basic technical development studies
 - D.1.1. Assessment of necessary technical actions to improve SITC testing
 - D.1.2. Development of a list of requirements for an integrated power supply system for laboratories
 - D.1.3. Development of a list of requirements and basic principle drawings for a simple and efficient integrated climate control system
 - D.1.4. Development of a suitable moisture correction
- D.2. Evaluation of cotton variability

Component E: Technical Evaluation and dissemination

- E.1. Impact assessment of SITC
- E.2. Transfer of the acquired knowledge to other regions
- E.3. Dissemination
 - E.3.1. Planning of the dissemination
 - E.3.2. Realisation of the dissemination

Component F: Project Management and Financial Administration

Component G: Supervision, Monitoring and Evaluation

Implementation

The Regional Technical Centres will be based on the specific regards and questions of all countries in the covered regions. For this purpose, a board of members representing cotton laboratories, cotton stakeholders and governmental interests in the Region will be created to plan and to check the activities of the RTCs on a regular basis.

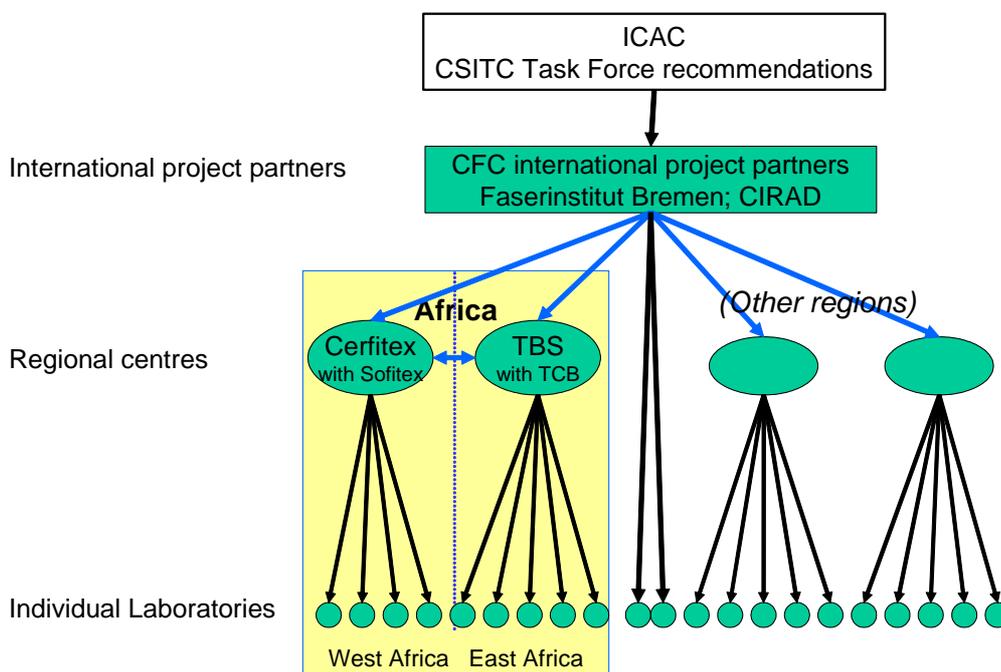


Fig. 1: Support Structure

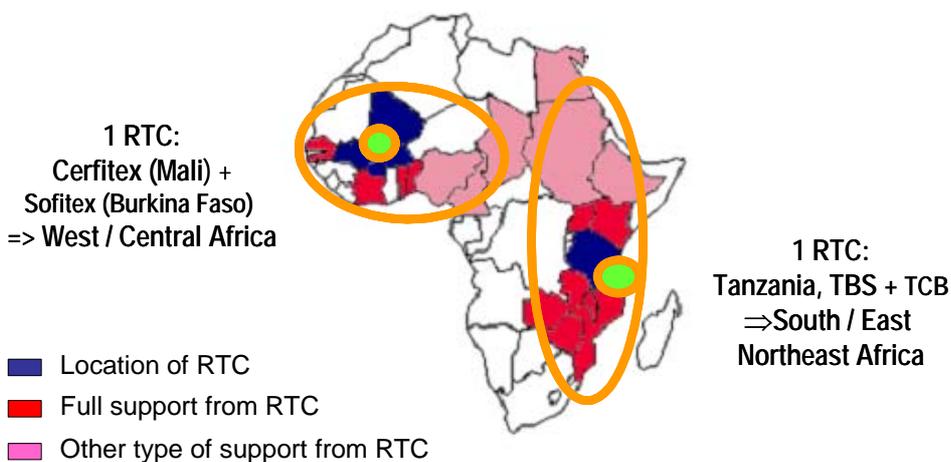


Fig. 2: Regions and partners

In more details, the project is designed as follows:

- The first components of the project will be the establishment of an international system to check laboratory reliability. Besides the necessary basic international configuration of this kind of check system, the main focus is the installation of a CSITC Round Trial. By participating in this Round Trial, laboratories can prove to produce reliable results thanks to the certification process. Other important global activities will be:
 - the preparation and provision of information to assist the implementation of instrument testing in the trade rules
 - the preparation of a sound basis for testing, including e.g. a comprehensive test method including all aspects of standardised instrumental testing.
- The core of the project will be to enable the cotton producing developing countries in Africa to adopt and implement the international cotton quality assessment in their countries and for the benefit of their cotton business. Therefore it is important:
 - ⇒ ... to pay regard to the specific problems in developing countries during the development of a cotton testing laboratory certification system
 - ⇒ ... to establish the capabilities required for African Regional Technical Centres (RTCs) – to provide a support to regional laboratories
 - setting up African Regional Technical Centres (RTCs)
 - international training of experts for the RTCs
 - international reference and guidance for the RTCs
 - ⇒ ... to support laboratories in Africa directly, so that they will be able to fulfil the requirements for reliable testing
 - expertise and monetary support for the necessary modifications in the equipment (conditioning, equipment)
 - training of the regional laboratories by the Regional Technical Centres
 - reference measurements for the laboratories (including fixed percentage of re-tests and regular international and regional round trials)
 - ⇒ ... to support laboratories and regions in Africa that cannot be fully supported by the two planned RTCs, by the involved international partners.

The routine work that is to be done by the Regional Technical Centres for the region covers mainly two activities:

1. **Reference activities** to prove the reliability of test results
 - reference measurements for cotton fibres (regional reference laboratory)
 - re-tests of samples tested in the laboratories
 - regional round trials with regional cottons
 - support for the participation of the cotton testing laboratories in the international certification.
2. **Provision of information** to run cotton testing laboratories with SITC instruments and to fulfil quality requirements
 - training
 - for cotton testing laboratories according to instrument testing and additional visual classing
 - for cotton testing laboratories on quality management and laboratory management
 - for staff in the cotton chain to realize the complexity of quality, its dependencies and its influences on the subsequent steps
 - experience and expertise for the laboratories for special questions
 - contact person for any testing related questions
 - detailed expertise for special topics
 - collection and dissemination of technical information (prepared in data bases)
 - support the cooperation between the concerned partners in the different countries of the region.

Both RTCs will be equipped with an SITC¹ instrument (as Uster HVI or Premier ART) and with the necessary equipment to form an exemplary laboratory. The RTC laboratory will fulfil the following tasks:

- Exemplary laboratory for training, expertise and information of the regional laboratories
- Reference laboratory for re-tests and round trials
- Performing laboratory instrumental testing of the regional cotton production.

The participating international partners will support and ensure all regional activities.

Global summary

The envisaged output of the ICAC CSITC Task Force, which is addressed by this project, is a global cotton quality assessment/grading system for objective and reliable test results, based on instrument testing and acceptable to all parties in the worldwide trade. This objective will be attained by measures as a global CSITC specific round trial for the evaluation of testing laboratory performance.

The second and core aim is to facilitate the full participation of the African producers in such global, commercial and competitive environment. This African specific objective will be possible thanks to the establishment of two Regional Technical Centers (RTCs), which will be in charge of transferring knowledge from the international level to the African laboratories and of checking and therefore assuring laboratory test results. After the end of the project, the RTCs should be financially sustainable in order to continue their regional activity in serving African laboratories.

Based on the project, the cotton producing developing countries will be enabled to sell their cotton based on reliable and comparable test results.

- ⇒ Price discounts due to unknown properties can be avoided.
- ⇒ Claims can be avoided.
- ⇒ The market share of cottons from developing countries can be secured or even improved.
- ⇒ Test results can be used for the benefit of all stages in the textile value added chain.
- ⇒ The monetary benefit regarding higher achievable prices will be approx. 3 US-ct/kg. This implies a benefit of approx. 15 Mio USD/year solely for West Africa.

Financing plan

Estimated total cost	USD 7,906,528
Financing sought from the Fund	USD 2,034,697
Co-Financing: European Union	USD 3,000,000
External	USD 1,584,102
Contribution FIBRE	USD 640,511
Contribution CIRAD	USD 333,663
Contribution CERFITEX/ SOFITEX	USD 125,060
Contribution TBS/ TCB	USD 178,380
Contribution ICAC	USD 10,115

External contributions are given by: CSITC Task Force members, Bremen Cotton Exchange, USDA-AMS, Uster Technologies Inc. and Premier Evolvics pvt Ltd

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¹ The abbreviation SITC – Standardised Instrument for Testing of Cotton - was chosen, as HVI is a landmark from Uster Technologies, Knoxville, TN

Project Summary Information

The International Cotton Advisory Committee (ICAC) submitted a draft project proposal for consideration with its recommendation for financing by the Common Fund for Commodities (CFC). The proposal was approved by the Executive Board of the Fund, on 10 April 2006.

Project Title	Commercial Standardisation of Instrument Testing of Cotton for Cotton Producing Developing Countries in Africa
Status	Proposal, submitted to the Common Fund for Commodities in November 2005
Location	West Africa (including Central Africa) – represented by Mali/Burkina Faso; East Africa (including Southern Africa) – represented by Tanzania; Germany France
Estimated total cost	USD 7,906,528
Financing sought from the Fund	USD 2,034,697
Mode of financing	Grant
Co-Financing: European Union	USD 3,000,000
Submitting institution	International Cotton Advisory Committee (ICAC)
Project Executing Agency	Faserinstitut Bremen e.V. (FIBRE), Germany
Additional Participating Agencies	ICAC, Washington CIRAD, France Tanzania Bureau of Standards (TBS), Tanzania Tanzania Cotton Board (TCB), Tanzania CERFITEX, Mali SOFITEX, Burkina Faso
Supervisory Body	ICAC
Duration	4 years
Estimated Start Date	January 2007
Major external partners:	- United States Department of Agriculture - Agricultural Marketing Service – USDA-AMS, USA - Bremer Baumwollbörse (Bremen Cotton Exchange), Germany